PROGRAMS AND SERVICES FOR MUNICIPAL GOVERNMENTS 1988 - 89

Alberta
ENVIRONMENT

89-01155/

ALBERTA ENVIRONMENT - PROGRAMS AND SERVICES FOR MUNICIPAL GOVERNMENTS

1988-89

Alberta Environment

Alberta
ENVIRONMENT

Office of the Minister

420 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-2391

Alberta Environment is pleased to work with municipal governments and local authorities in an impressive number of areas related to the health and well-being of our province and its citizens.

This report outlines the many programs and services available to municipalities. I hope it will further enhance the excellent working relationship enjoyed by the department and municipal governments.

Yours truly,

Ian C. Reid
Minister of Environment

ALBERTA ENVIRONMENT - PROGRAMS AND SERVICES
FOR MUNICIPAL GOVERNMENTS

A. Approvals, Permits and Licenses — Page No.

1) Clean Water Act Approvals to Construct and Operate Water, Sewage and Storm Water Works 2

2) Clean Water Act and Clean Air Act Approvals to Construct and Operate Hazardous Waste Storage, Treatment and Disposal Facilities 3

3) Development and Reclamation Approvals 4

4) Pesticide Application Permits and Applicator and Vendor Licenses 5

5) Beverage Container Licenses 6

6) Surface Water Permits and Licenses 7

7) Ground Water Permits and Licenses 8

8) Water and Waste Water Operator Certification Program 9

B. Monitoring Control and Enforcement

1) Land Reclamation 11

2) Sand and Gravel Program 12

3) Provincial Ground Water Observation Well Network 13

4) Litter Control 14

5) Pesticide Management 14

6) Municipal Water and Sewerage Systems 16

C. **Information and Advisory Services** **Page No.**

1) Water Resources Inspection Services.....18

2) Ground Water Resources Information Services.....18

3) Waste Water Irrigation and Sludge Spreading.....19

4) Regional and Modified Landfill Investigations.....21

5) Pest Management, Diagnostic and Extension Services.....22

6) Pollution Emergency Response Team (PERT).....23

7) Waste Manifest System.....24

8) Pesticide Management.....25

9) Water and Waste Water Operator Training Program.....26

10) Municipal Water & Sewage Systems.....27

11) Flood Risk Mapping.....27

12) River Forecast Centre.....28

13) Hydrologic (Surface Water) Data Gathering Program.....29

14) River Ice Problem Mitigation.....30

D. **Funding and Services Available for Municipalities**

1) Biting Fly Control Financial Assistance Program.....32

2) Alberta Water Management and Erosion Control Program.....33

3) Surface Water Development and Control Program.....34

4) Northern Alberta Erosion Control Area.....35

5) Emergency Water Pumping Program.....35

6) Resource Recovery Grant.....36

7) Reclamation Program for Derelict Land.....37

8) Alberta Waste Management Assistance Program.....38

A. APPROVALS, PERMITS AND LICENSES

1) Clean Water Act Approvals to Construct and Operate Water, Sewage and Storm Water Works

2) Clean Water Act and Clean Air Act Approvals to Construct and Operate Hazardous Waste Storage, Treatment and Disposal Facilities

3) Development and Reclamation Approvals

4) Pesticide Application Permits and Applicator and Vendor Licenses

5) Beverage Container Licenses

6) Surface Water Permits and Licenses

7) Ground Water Permits and Licenses

8) Water and Waste Water Operator Certification Program

*****

1) **Clean Water Act Approvals to Construct and Operate Water, Sewage and Storm Water Works**

Service Beneficiary: Public, Municipalities

Objective/Purpose: To ensure Albertans have safe drinking water and to protect the quality of the province's surface and ground water and land resources from municipal waste water pollution.

Description of Service:

The Director of Standards and Approvals, under the Clean Water Act, the Clean Water (general) Regulations and the Clean Water (Municipal Plants) Regulations has responsibility for reviewing and issuing approvals for the construction and operation of the following municipal facilities:

i) storm water systems;

ii) sewerage projects including sewer systems and waste water treatment facilities (private septic tank systems are excluded); and

iii) waterworks systems including water supply systems, water treatment facilities and water distribution systems (single family dwelling systems are excluded).

The formal approvals issued by the Director of Standards and Approvals for municipal projects include:

i) Permits to Construct;

ii) Certificates of Compliance;

iii) Licenses to Operate; and

iv) Letters of Permission

These formal approvals are issued based on technical reviews of project reports, plans, specifications and other associated submissions. Submissions are reviewed in relation to: Clean Water Legislation; standards/guidelines/criteria that have been developed by the Department; and accepted municipal engineering design concepts and practices. Department staff, through correspondence and meetings, work with the public and municipalities to plan and implement municipal water supply and sewerage systems. This public function, combined with in-house project reviews, is extremely important in maintaining and protecting public health in Alberta.

*****

2) **Clean Water Act and Clean Air Act Approvals to Construct and Operate Hazardous Storage, Treatment and Disposal Facilities**

Service Beneficiary: Public, Municipalities, Industries

Objective/Purpose: To ensure Albertans have safe drinking water and to protect the quality of the province's surface and ground water and land resources from improper hazardous waste practices.

Description of Service:

The Director of Standards and Approvals, under the Clean Water Act, the Clean Air Act and the Hazardous Chemicals Act, has responsibility for reviewing and issuing approvals for the construction and operation of the following facilities:

i) landfills that receive hazardous waste,

ii) storage facilities where a hazardous waste is stored for longer than 365 days, or where hazardous wastes are stored in an amount that exceeds 10 tonnes, and

iii) incinerators where any waste is incinerated.

The formal approvals issued by the Director of Standards and Approvals include:

i) Permits to Construct,

ii) Licenses to operate, and

iii) Letters of Permission.

These formal approvals are issued based on technical reviews of project reports, plans, specifications and other associated submissions. Submissions are reviewed in relation to standards/guidelines/criteria that have been developed by the Department through consultation with industries, municipalities and the public.

*****

3) **Development and Reclamation Approvals**

Service Beneficiary: Public, Industry, Municipalities

Objective/Purpose: To protect the environment by minimizing surface disturbance and ensuring disturbed land is returned to equivalent land capabilities upon the conclusion of land reclamation.

Description of Service:

Prior to commencing a regulated operation, an operator must submit an application for Development and Reclamation Approval. This application outlines the operator's plans to anticipate problems, minimizes the extent and effects of disturbance and ensures successful reclamation. The plans are reviewed by government for compliance with land resource legislation and policies.

The Development and Reclamation Approval specifies operating terms and conditions for development and reclamation activities.

Types of projects designated by law as regulated operations include the larger:

Coal Mines
Oil Sands Mines

Insitu Oil Sands Recovery Schemes
Oil and Gas Pipelines
Sand, Gravel, Clay and Marl Pits

*****

4) Pesticide Application Permits and Applicator and Vendor Licenses

Service Beneficiary: Public, Industry, Municipal Governments

Objective/Purpose: To facilitate the enhancement of society and protection of humans, animals and the environment through the safe and efficient management of pesticide chemicals.

Description of Service:

Licenses are required:

i) to operate a business or provide a service involving the sale, use or application of a pesticide; and

ii) to apply or sell pesticides for hire or reward, or to offer to apply or sell pesticides.

Twelve (12) separate classes of commercial applicator licenses are issued, depending upon the particular type of pest control that is offered. The applicator is licensed, provided he/she has met the qualifications and requirements of training, experience, insurance and medical examination set by the legislation. The applicator is required to maintain records for each pesticide application and to submit record summaries each year.

Two classes of wholesale pesticide vendor licenses are issued, as well as three classes of retail pesticide vendor licenses. The holder of a retail vendor license is required to ensure that at least one competent individual is at each premise or outlet covered by the license and to comply with legislative requirements for storage, display and record-keeping.

Permits are required:

i) for the application of pesticides to or within 30 horizontal metres of open bodies of water;

ii) for the application of pesticides in the Green Area of the province for the control of vegetation along the rights-of-way;

iii) for the use of such restricted products as hydrocyanic acid gas, methyl bromide, phosphine or strychnine over 2%;

iv) for research and testing of unregistered pesticides or unregistered uses of pesticides; and

v) for the application of pesticides for forest production.

All permits issued by the Department ensure compliance with either federal registration of product use or federal research permits which are submitted for the application for a permit.

*****

5) **Beverage Container Licenses**

Service Beneficiary: Public

Objective/Purpose: Sets up a system for the orderly collection and recycling of beverage containers.

Description of Service:

The Department:

- licenses beverage container return depots
- sets deposit levels on refillable and non-refillable containers
- sets handling charges for depots
- mediates disputes between depots, manufacturers and the public

- enforces the Beverage Container Act
- aids the manufacturer with advice on recycling material collected

The Department is not involved with mobile collection services. About 200 licensed depot operators are registered in the Province at the present time.

*****

6) Surface Water Permits and Licenses

Service Beneficiary:	Public, Municipalities, Industry
Objective/Purpose:	To allocate water in an orderly manner and for beneficial purposes while at the same time protecting the source of supply, individual rights and the environment.

Description of Service:

Licenses are required:

- To divert and use water for a number of purposes, including domestic, municipal, irrigation, agricultural and industrial;

- To dam, impound or store water for such things as stock water, flood control, flow regulation and erosion control; and

- to divert water, without impounding, for drainage or flood control.

This license would stipulate the location, source of supply and quantity and rate of withdrawal.

Permits are required:

- To place any structure or material (e.g. pipelines and bridges), which may affect water management, in, over or next to water;

- to alter the shoreline, banks or bed of a body of water in a way which may affect water management, including sand and gravel removal, erosion protection and brushing operations, docks and wharfs.

This permit would stipulate the location and terms and conditions related to construction procedures and timing.

Approval is NOT necessary for:

- domestic farm use and irrigation of up to one acre of garden
- construction of a small dugout for domestic stock water.

*****

7) Ground Water Permits and Licenses

Service Beneficiary: Public, Municipalities, Industry

Objective/Purpose: To allocate water in an orderly manner and for beneficial purposes while at the same time protecting the source of supply, individual rights and the environment.

Description of Service:

Licenses are required to divert and use ground water on a permanent basis for a number of purposes, including:

- Municipal - hamlets, villages, towns, cities
- Agricultural - feedlots
- Industrial - processing and cooling water
- Irrigation - including greenhouses and tree farms

This license would stipulate the location, source of supply, and quantity and rate of withdrawal.

Temporary permits are required to divert and use ground water on a temporary basis for any of the above listed purposes, but are most often issued for:

- construction camps
- pilot plants
- dewatering construction sites and mines
- water flood (oilfield injection)

This temporary permit would stipulate the location, source of supply, quantity and rate of withdrawal and date expiry

Approval is NOT necessary for:

- domestic farm use and irrigation of up to one acre of property;

- household use on property owned or occupied by the well owner, such as on acreages;

- wells equipped with hand pumps; and

- small quantities of water used for human consumption in small industrial buildings.

*****

8) **Water and Waste Water Operator Certification Program**

Service Beneficiary: Public, Municipalities

Objective/Purpose: To protect public health and safety and to protect the environment by ensuring that all municipalities have properly qualified personnel to operate water and waste water facilities.

Description of Service:

All municipalities are required to have operators certified as being qualified to operate the municipality's water and waste water facilities.

This is carried out by reviewing the facility as to its size and complexity to determine what type of operator is required, reviewing operator qualifications and providing certification exams.

Operators' certificates are renewed biennially.

*****

B. MONITORING CONTROL AND ENFORCEMENT

1) Land Reclamation

2) Sand and Gravel Program

3) Provincial Ground Water Observation Well Network

4) Litter Control

5) Pesticide Management

6) Municipal Water and Sewerage Systems

*****

1) Land Reclamation

Service Beneficiary: Public, Municipalities, Industry

Objective/Purpose: The LCRC (Land Conservation and Reclamation Council) has the responsibility under the Land Surface Conservation and Reclamation Act to ensure that the construction, operation and abandonment of surface disturbing operations are performed in such a manner as to return the land to the same equivalent capability as it was prior to disturbance.

Description of Service:

Before an operator can abandon an operation or surrender the surface lease, he/she must apply for and receive a reclamation certificate. The issuance of a reclamation certificate requires an inspection of the site by the reclamation officers along with the land owner and the company. Any indication of a problem with the land may require the reclamation officers to issue a reclamation order which could include topsoiling, manuring, cultivation, or rock picking, etc. If the reclamation officer finds that proper reclamation has been undertaken, a reclamation certificate will be issued.

Types of projects that require monitoring and certification:

Wellsites and access roads
Pipelines
Batteries
Transmission Lines
Quarries
Coal and Oil Sands Mines
Sand, Gravel, Clay and Marl Pits
Waste Disposal Sites
Landfill Sites

Coal and Oil Sands Exploration
Insitu Oil Sands Recovery Schemes

*****

2) Sand and Gravel Program

Service Beneficiary: Public, Municipalities, Industry

Objective/Purpose: To ensure that sand and gravel pits on patented land will be reclaimed to a useful state.

Description of Service:

The program has documented more than 1,950 pits in 43 municipalities and operators are being notified, one municipality at a time, of reclamation and approval requirements.

Pits disturbing more than five acres require a development and reclamation approval prior to operation. Approximately 35 per cent of the pits that are documented are in this category. The Sand Gravel Clay and Marl Regulations AR 228/82 apply to private, municipal and provincial operations on patented land. A security deposit of $250 per acre is required for private operations but no security is required for municipal or provincial operations.

To date gravel operators in 43 municipalities have been notified of the requirements and another two municipalities will be notified in the coming year. The municipalities identified as having increased industrial use for aggregate will be given priority for notification.

Of the 665 pit operators contacted to date, 97 per cent have responded positively to requests for development and reclamation plans, which indicates a high level of acceptance of the program. The Municipalities and the Provincial Government, as pit operators, play a lead role in adhering to development and reclamation guidelines.

*****

3) Provincial Ground Water Observation Well Network

Service Beneficiary: Public, Industry, Government Authorities located across Provincial and national boundaries

Objective/Purpose: To monitor water levels and ground water quality. This monitoring becomes a source of background data, which can be used to determine trends for the future development of this resource. The data obtained is used to assist in the orderly utilization and protection of ground water resources.

Description of Service:

The service is provided through The Provincial Observation Well Network.

(1) Provincial Observation Well Network

This is a network of more than 250 wells located throughout the province. Ninety of these wells can be classified as local because they are located near areas of known influences on ground water, for example, rivers, pumping wells and dams. Monitoring of these wells (continuous water level recordings and periodic water sampling) provides data to determine the influence exerted on the ground water resource. The remainder of the wells monitored (approximately 160) are used to determine background data on water levels and water quality for most major aquifers.

This service of monitoring was continued after the networks was absorbed, in mid 1982, from the Alberta Research Council. It is an ongoing program expected to maintain most of the present wells and expand into new areas throughout Alberta. Data is available.

*****

4) Litter Control

Service Beneficiary: Public, Municipalities

Objective/Purpose: To provide municipalities with a mechanism to help control litter and litter related properties - i.e. unsightly premises, etc.

Description of Service:

The Act provides a mechanism to:

- Charge people with offences if they are caught littering and allow for clean up by the Crown;
- Require clean up of unsightly premises, including clean up by the Crown with cost recovery if necessary; and
- Require clean up of spills on highways or roadways, including clean up by the Crown with cost recovery if necessary.

The Department is also involved with other litter programs through funding Outdoors Unlittered. There were 300 clean up orders issued by municipalities during the 1985/86 fiscal year.

*****

5) Pesticide Management

Service Beneficiary: Public, Industry, Municipal Governments

Objective/Purpose: To provide and promote a high standard of pesticide management practices and awareness.

Description of Service:

Control:

In Alberta, pesticide chemicals are controlled under the Agricultural Chemicals Act and Regulations. It is the policy of Alberta Environment to develop and administer legislation which will encompass four broad aspects of pesticide management:

i) control of use, application, handling, and monitoring;
ii) assignment and sharing of responsibilities with other jurisdictions;
iii) provision for the incorporation of advice on the management of pesticides; and
iv) provision for the undertaking of such management responsibilities as the classification or scheduling of pesticide chemicals.

The Pesticides Chemicals Branch is responsible for administering the Act, its provisions and regulations. Under the Act, local authorities are required to appoint inspectors to carry out the provisions of the legislation within the boundaries of their municipalities.

Control measures to ensure the safe, informed, effective application of pesticide chemicals include:

i) permits
ii) licenses
iii) examinations
iv) scheduling of pesticides to various classes, depending upon potential for human health hazard and/or environmental hazard; and
v) monitoring and inspections.

Enforcement:

The Agricultural Chemicals Act provides for:

- written suspension and Chemical Control orders
- prosecution
- suspension or cancellation of a permit or license

*****

6) Municipal Water and Sewerage Systems

Service Beneficiary: Public, Municipal Governments, Industry

Objective/Purpose: To ensure Albertans have safe drinking water and to protect the province's water from municipal discharges.

Description of Service:

The Department is responsible to ensure that all municipal water and sewage facilities are properly operated and maintained in accordance with the Clean Water Act. A municipal system is any communal system involving more than one household.

This service is carried out through regular inspections, sampling of the facilities and review of the self-monitoring data that municipalities are required to produce and submit to the department.

The quality of an individual municipality's drinking water is maintained on a number of data bases. The chemical parameters include inorganic salt, heavy metals and a wide variety of organic compounds.

*****

C. INFORMATION AND ADVISORY SERVICES

1) Water Resources Inspection Services

2) Ground Water Resources Information Services

3) Waste Water Irrigation and Sludge Spreading

4) Regional and Modified Landfill Investigations

5) Pest Management, Diagnostic and Extension Services

6) Pollution Emergency Response Team (PERT)

7) Waste Manifest System

8) Pesticide Management

9) Water and Waste Water Operator Training Program

10) Municipal Water and Sewage Systems

11) Flood Risk Mapping

12) River Forecast Centre

13) Hydrologic (Surface Water) Data Gathering Program

14) River Ice Problem Mitigation

*****

1) Water Resources Inspection Services

Service Beneficiary: Public, Municipalities

Objective/Purpose: To provide technical and engineering advice to individuals and municipalities regarding problems caused by surface water.

Description of Service:

Requests for inspections are made to the Regional Office of the Water Resources Administration Division. Field investigations are conducted by department staff and technical reports are prepared. All individuals involved in an inspection are advised in writing of the proposed action and of recommendations required to resolve the surface water problem.

Technical and engineering advice is provided on a first come, first served basis.

This is an ongoing program that has been in place for many years.

*****

2) Ground Water Resources Information Services

Service Beneficiary: Public, Industry, Government Authorities

Objective/Purpose: To maintain and develop a systematic source of ground water data in the Province, with ready access in order to supply the information to the general public, industry and consultants in a format compatible with their needs.

Description of Service:

A general ground water data file, made up of more than 280,000 files and growing at a rate of about 12,000 files per year, is maintained. It contains driller reports submitted as a requirement under the Ground Water Development Act, water chemistry reports from the division laboratory in Lethbridge and the Environmental Centre Laboratory in Vegreville, geophysical logs, pumping test data and other relevant well information. An index of basic data for individual wells is computerized.

The general file is supported by a ground water reports file with more than 3,600 titles received from consultants and government agencies. Each report is indexed in a bibliography.

Both files are microfilmed and regularly updated.

Responses to public information requests are immediately given by telephone when possible, or by providing paper or microfiche copies of the pertinent documents. Availability of the services is actively promoted.

*****

3) Waste Water Irrigation and Sludge Spreading

Service Beneficiary: Public, Industry, Municipal Governments

Objective/Purpose:

1. To make recommendations regarding suitability of land to receive municipal waste water irrigation.
2. To assess the suitability of land treatment of industrial wastes over the long-term and at field scale.
3. To investigate crop yields and changes in chemical character of soils and plants as the result of land spreading of sewage sludge.

Description of Service:

1. Municipal Waste Water Irrigation

Samples of effluent from sewage lagoon are analyzed to determine if the quality is suitable for irrigation. If so, the soils to be used are tested to determine physical and chemical characteristics. In some cases data from consultants' reports are reviewed.

2. Evaluation of Industrial Waste Water Schemes

Numerous industrial wastewaters with high organic and nutrient concentrations are difficult to treat by irrigating at the same rates as for municipal waste water. However, treatment of such waste waters from some industries appears feasible. To determine this, soils and ground water quality of irrigation schemes associated with potato, meat, sour gas processing plants and nitrogen fertilizer manufacturers, are monitored.

3. Land Spreading of Sewage Sludge

Many communities in Alberta find their sewage sludge storage lagoons rapidly fill to capacity. An alternative to building new lagoons is land spreading. Sludge adds nitrogen and phosphorus, as well as heavy metals, to the soil. There is concern that the heavy metals will enter the food chain through crops grown on the sludge-treated soil.

Experimental plots have been established near Edmonton, Calgary and Red Deer. Soil and plant samples have been analyzed over a number of years to determine differences in chemical composition as a function of either rate of application or of time.

Under the Clean Water Act and Regulations, a letter of permission must be obtained from the Director of Standards and Approvals, prior to the application of waste water or sludge on land.

*****

4) Regional and Modified Landfill Investigations

Service Beneficiary: Public, Municipal Governments

Objective/Purpose: To ensure that landfills are developed at sites where the risk of ground water contamination from the landfill is minimal.

Description of Service:

1. **Regional Landfill Evaluations**

   a) Municipalities are assisted in the selection of potentially suitable sites for landfill development by defining general areas through the use of published and unpublished data. Constraint maps are constructed for those parts of the area ranging radially from eight to 24 kilometers from the particular municipality, showing suitable and unsuitable areas for landfilling.

   b) Requests for hydrogeological investigations are received for specific sites. The municipality is encouraged to submit several sites at once so that some initial ranking can be done.

   c) To rank the sites, office evaluations are carried out using aerial photographs and published and unpublished information.

   d) A detailed hydrogeological investigation of the best available site is done to identify the following parameters:
      i) topography and landforms;
      ii) type of surficial and bedrock materials and hydraulic conductivities;
      iii) shallow aquifers;
      iv) depth to water table; and
      v) direction and velocity of ground water flow.

2. **Modified Landfill Evaluations**

a) Again, assistance is provided by defining general suitable areas for landfills (smaller areas than for regional).
b) Requests for investigations are received from the local health unit.
c) Investigations are designed to identify topography and landforms, type of surficial and bedrock materials, shallow aquifers and depth to water table.

*****

5) Pest Management, Diagnostic and Extension Services

Service Beneficiary: Public, Agricultural Producers, Municipalities, Government

Objective/Purpose: To provide insect, plant disease, weed and chemical damage diagnostic and extension services.

Description of Service:

1. **Diagnostic Service**

Several thousand samples are diagnosed annually for district agriculturists, agricultural fieldmen, Health Units, Alberta Agriculture Regional Crops Laboratories, farmers, horticulturists and home gardeners. In most cases control recommendations are provided or advice is given on how to prevent or reduce damage in current or future crops.

a) Insects - more than 600 insect submissions of agricultural, horticultural and public health significance are identified annually.

b) Plant Diseases - About 1200 plants are received annually for disease identification. To determine the incidence of important diseases, surveys are conducted in grain, oilseed and forage crops in northeastern Alberta.

c) Weeds - About 500 weed diagnoses are made annually and advice is given on control methods. A weed garden is maintained for training of field staff and for other extension purposes.

d) Chemical Damage - Plants suspected of having been damaged by herbicide drift or by exposure to other chemicals are diagnosed. About 500 cases are handled each year. Correct diagnosis of damage caused by herbicides and other chemicals to field crops and other vegetation is necessary not only to determine cause of the damage but also to be able to assess economic losses, help settle legal claims and to provide information on how to prevent such occurrences.

2 Extension Services

Pest control information is provided through courses, seminars, talks, agricultural fairs, a Crops Field Day and contact with the farm news media. Publications such as "Weeds of Alberta","Herbicide Action and Injury", "Herbicide Carry-Over","Biological Pest Management" and numerous brochures, pamphlets, information sheets are produced for use in extension activities.

*****

6) Pollution Emergency Response Team (PERT)

Service Beneficiary: Public, Industry, Municipal Governments

Objective/Purpose: To provide successful mitigation of spills and, after hours, to respond to calls from the public, industry and municipal governments pertaining to environmental matters-air and water pollutions, contraventions,complaints, etc.

Description of Service:

This service, provided by the Pollution Control Division operates as follows:

a) After receipt of information of a spill, review the situation; provide on-site supervision of containment, clean-up, disposition of cleaned-up materials and restoration of spill site; advise on mitigation of spills;

b) Assure notification of other concerned agencies such as Forestry, Wildlife, Municipalities, Police, A.P.S.S.;

c) Investigate complaints and mitigate the problems;

d) Monitor incidents to ensure minimal effect on the environment;

e) Conduct follow-up inspections to ensure all problems have been addressed and corrected; and

f) Initiate and conduct enforcement proceedings as required in those cases where the problems are not being corrected.

On an average, more than 800 telephone calls per year are responded to as part of the after hours emergency service.

*****

7) Waste Manifest System

Service Beneficiary: Municipalities, Industries

Objective/Purpose: The Waste Manifest is a tracking system for hazardous wastes.

Description of Service:

It provides the generator of hazardous wastes with information about where the material is being shipped.

It provides haulers and disposers with information as to exactly what kind of material they are hauling or disposing.

The manifest is a six part form:

Copy #1 is completed by the generator, then mailed to Alberta Environment

Copy #2 is retained by the generator
Copy #3 is completed by the receiver, then mailed to Alberta Environment
Copy #4 is retained by the receiver
Copy #5 is retained by carrier
Copy #6 is mailed to generator by the receiver

Several thousand manifests are processed each year. Manifests have been implemented on a voluntary basis.

*****

8) Pesticide Management

Service Beneficiary: Public, Industry, Municipal Government

Objective/Purpose: To facilitate the enhancement of society and protection of humans, animals, and the environment through the safe and efficient management of pesticide chemicals.

Description of Service:

Training

Training courses have been developed to provide instruction in the safe and effective application and handling of pesticide chemicals; courses are provided for 12 separate classifications of pesticide applicator, as well as to pesticide dispensers in retail outlets.

Extension

As a proactive measure of control, extension has provided significant gains in pesticide management. Activities include:

i) distribution of a monthly "update" newsletter to more than 1,700 recipients;

ii) publication of a semi-annual "Pesticides in Focus" report, as well as several other technical reports each year;

iii) presentation of seminars to a variety of pesticide user groups, industry, schools, pesticide inspectors, etc;

iv) publication of a "Pesticide Poison Manual" for medical and hospital emergency-treatment staff;

v) publication of a "Pesticide Spills and Fires" manual for emergency-response agencies; and

vi) provision of technical assistance to several hundred public, industrial, government and news media pesticide-related queries annually.

*****

9) Water and Waste Water Operator Training Program

Service Beneficiary: Operators of municipal water and waste water systems

Objective/Purpose: To ensure that municipal drinking waters are safe and potable and that the environment is protected from municipal discharges by proper operation of municipal water and waste water facilities.

Description of Service:

The Department offers between 15 and 20 courses annually for operators of water and waste water systems to assist them in the operation of their facilities and to allow them to upgrade their qualifications. Courses take a variety of formats including seminars, hands-on workshops, homestudy and correspondence courses. These courses are provided in a variety of centres throughout the province during the fall and winter. The types of courses and the material delivered varies from year to year depending on recommendations from operator

groups, municipalities, and inspectors.

*****

10) Municipal Water and Sewage Systems

Service Beneficiary: Municipal officials

Objective/Purpose: To ensure proper operation and maintenance of municipal water and sewage facilities.

Description of Service:

The Municipal Engineering Branch within the Department provides engineers and technicians to assist operators and councils with the operation and maintenance of their water and waste water facilities. Department personnel help operators with on-site problems they may be encountering with their operations. The department also provides an emergency response service whenever there is a mishap regarding municipal water and sewage facilities.

*****

11) Flood Risk Mapping

Service Beneficiary: Public, Municipalities

Objective/Purpose: To provide maps/reports identifying the location of urban floodplain areas that are subject to a one per cent or greater risk of being flooded by a river or stream.

Description of Service:

1. All urban areas bordering rivers and streams come under the program.

2. Major centres have been mapped and revisions are made as necessary.

3. New subdivisions are generally mapped upon request by a planning commission.

*****

12) River Forecast Centre

Service Beneficiary: Public, Irrigation Users, Hydro-electric Companies, Flood Control Agencies, Recreationists

Objective/Purpose: To provide river forecasts, real-time river information and real-time technical advice for water resources management and general river uses for the province of Alberta.

Description of Service:

River Forecasting includes:

- flood forecasting and flood warning;
- water supply volume forecasting; and
- generally, the prediction of the rate of flow and the water level of a river at a location, or the water level of a lake or reservoir, for a number of days into the future.

Providing real-time* river information includes:

- providing information on current streamflow conditions, and
- monitoring flow conditions at the borders of Alberta to ensure that the province meets its commitments to other jurisdictions as specified in the Master Agreement on Apportionment and that other jurisdictions meet their commitments to Alberta.

Real-time water management technical advice includes:

- forecasting flood inflow to provincial water storage reservoirs;
- advising reservoir operators concerning real-time flood regulation operations;
- forecasting streamflow at diversion points along a river to anticipate the short-term future day-to-day water supply situation;
- advising reservoir operators concerning real-time water supply operations; and
- advising the Water Resources Management Services of Alberta Environment concerning real-time* water regulation strategies during periods of water supply shortage.

*real-time means current

*****

13) Hydrologic (Surface Water) Data Gathering Program

Service Beneficiary: Public, Municipal Governments, Industry

Objective/Purpose: To provide a continuing, extensive record of the physical state of Alberta's surface water resources.

Description of Service:

This program provides a continuing record of the physical state of Alberta's surface water resources including: the rate of flow of rivers and streams; the level and volume of lakes and reservoirs; the movement of water-borne sediment; the depth and water content of the snowpack and rainfall rates in certain remote areas. All data is archived and is available to any interested party. Data are published on an annual basis in book form.

*****

14) River Ice Problem Mitigation

Service Beneficiary: Municipal Governments

Objective/Purpose: To assist local authorities in preventing or removing ice jams which pose a danger to river bank communities.

Description of Service:

Preventive measures and/or special observations are taken for communities with recurrent problems.

*****

D. FUNDING AND SERVICES AVAILABLE FOR MUNICIPALITIES

1) Biting Fly Control Financial Assistance Program

2) Alberta Water Management and Erosion Control Program

3) Surface Water Development and Control Program

4) Northern Alberta Erosion Control Area

5) Emergency Water Pumping Program

6) Resource Recovery Grant

7) Reclamation Program for Derelict Land

8) Alberta Waste Management Assistance Program

*****

1) Biting Fly Control Financial Assistance Program

Service Beneficiary: Municipal Governments

Objective/Purpose: To assist municipal governments in the initiation and/or improvement of a biting fly control program.

Description of Service:

To be eligible for such grants, municipalities must submit an application for assistance to Alberta Environment prior to the commencement of their control programs, outlining proposed cost and methods of control. These proposals must be acceptable to the Department. Should conditions warrant that a control program receive any additional funds, such funds may be granted pending approval by the Minister of the Environment. Approved control programs will be subject to inspection. An annual report, including complete financial records, must be submitted by each municipality to the Department at the end of the control program in order to receive financial assistance. A licensed Class "L" applicator must supervise each abatement program.

This program was implemented in 1974 and is an ongoing program of the Provincial Government.

Grants are calculated according to a cost-sharing formula.

*****

2) Alberta Water Management and Erosion Control Program

Service Beneficiary: Municipal Governments

Objective/Purpose: To provide assistance to local authorities for the enhancement and regional development of the Province's water resources and to provide corrective measures where water, in its natural state, creates conditions adverse to the public interest.

Description of Service:

The project or projects must be initiated by a local authority and must be in the public interest and provide benefits to the general public or protect public investment. Project planning and consideration of all aspects of water resource and environmental management must precede implementation. The local authority initiating the project must accept the responsibility for land acquisition, operating and maintenance costs.

Agreements are entered into (under the Water Resources Act) between the Minister of Environment and the local authorities. Projects are funded on the basis of the budgetary priority for water management established by the government.

Grants are provided on a 75:25 per cent basis (Government funding up to 75 per cent of the project cost). The program also provides grants on an 86:14 per cent basis for agricultural flood control, drainage and erosion control projects.

This is an ongoing program of the provincial government implemented in October, 1972.

The Provincial Budget is as follows:

1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
$6,780,000	$5,941,000	$5,941,000	$6,361,000	$5,510,000	$4,990,000

*****

3) **Surface Water Development and Control Program**

Service Beneficiary: Municipal Governments

Objective/Purpose: To develop an adequate and controlled supply of water and to remove or mitigate those adverse effects imposed by water in its natural state.

Description of Service:

Projects may be initiated by local authorities. To be eligible a project must be in the public interest and provide wide spread benefits to the public.

If Alberta Environment believes that a project is of sufficient scope and benefit to a large area of the province, a project may be declared a major water management project. The department then provides planning, detailed engineering and 100 per cent of the funding for project implementation. Examples of such projects include water supply, water storage and distribution, drainage, flood control and lake level stabilization.

Alberta Environment can, by agreement, assign certain aspects or a portion of the cost to local authorities benefiting from the project.

*****

4) Northern Alberta Erosion Control Area

Service Beneficiary: Municipal Governments in Northern Alberta. The program was established in recognition that the area differs from the rest of Alberta in its characteristics and conditions, related to erosion susceptibility.

Objective/Purpose: To provide assistance to local authorities in the designated area for rehabilitation of water resources projects previously constructed under a cost-sharing arrangement with the province.

Description of Service:

Rehabilitation of projects is carried out under the Surface Water Development and Control Program and is funded 100 per cent by the department. Rehabilitated projects are subsequently eligible for maintenance grants on a 75:25 per cent basis or on an 86:14 per cent basis for agricultural drainage and flood control projects. These grants are funded under the Alberta Water Management and Erosion Control Program.

*****

5) Emergency Water Pumping Program

Service Beneficiary: Public, Municipal Governments

Objective/Purpose: To provide assistance to local authorities and communities by providing pumps and pipes to relieve emergency situations related to water shortages.

Description of Service:

When a water shortage situation is anticipated, the local authority must initiate the request for assistance, by identifying the nature of the emergency. Upon inspection and confirmation of the emergency nature of the situation, the department will react by supplying the necessary equipment to alleviate the problem.

An agreement is entered into between Alberta Environment and the local authority once department involvement is determined, indicating the approximate cost and stipulating that the local authority is responsible for obtaining land easements and for supplying the required labour for pipe installation.

Upon completion of the emergency pumping activity, the local authority is invoiced at cost to the department.

This is an ongoing program of the government.

*****

6) Resource Recovery Grant

Service Beneficiary: Municipal Governments

Objective/Purpose: To encourage non-profit and service groups to become involved in the collection of recyclable material and to encourage the reduction of wastes that must be disposed.

Description of Service:

This is a Capital Grants Program. The Department will fund non-motorized equipment necessary for the separation and storage of recyclable marketable materials.

There is a $640,000 available for recycling grants in 1988/89

The program is funded 100 per cent by the Province.

This is an ongoing program initially implemented in 1976. Applications are accepted throughout the year.

*****

7) Reclamation Program for Derelict Land

Service Beneficiary: Municipal Governments

Objective/Purpose: To reclaim derelict land that has been left idle with the objective of making that land as productive as it was prior to disturbance. The land in question must be owned by a public body or must be purchased by a public body.

Description of Service:

The Reclamation Branch of Alberta Environment assumes all responsibilities for engineering, supervision, planning, hiring and paying contractors to complete reclamation projects.

Abandoned sites considered to be eligible include:

- coal mines or quarries
- gravel pits
- garbage dumps and sewage lagoons
- refinery sites or other mineral processing plants
- industrial sites
- irrigation canals or man-made water reservoirs
- roadways, airports, railroads

The intent of the reclamation is to improve sites that were disturbed prior to legislation and return them to a productive use for Albertans. Recently abandoned sites will be carefully reviewed prior to acceptance as reclamation projects.

Some commonly submitted proposals which are NOT included in the program are:

- natural or water filled low lying areas
- agricultural operations

- forestry operations
- removal of car body stock piles
- picking up of scattered debris
- erosion control resulting from agricultural and forestry operation, and municipal or provincial projects including road building and bridge construction

This program has approval until March 31, 1989.
Applications by Municipalities can be made at any time during the year.

*****

8) Alberta Waste Management Assistance Program

Service Beneficiary: All rural and urban municipal governments who form a regional authority consisting of two or more urban municipalities plus one or more rural municipalities.

Objective/Purpose: To promote environmentally sound waste management throughout the Province.

Description of Service:

The Province will provide land and capital funding for regional sanitary landfill sites or other facilities for waste management.

The Province will pay 100 per cent of the fair market value for land, and lease this land to the municipality for use as a sanitary landfill. Annual operating costs are the responsibility of the regional authority.

This is an ongoing program of the Provincial Government implemented in December 1975.

*****